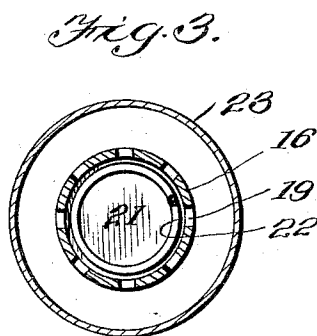
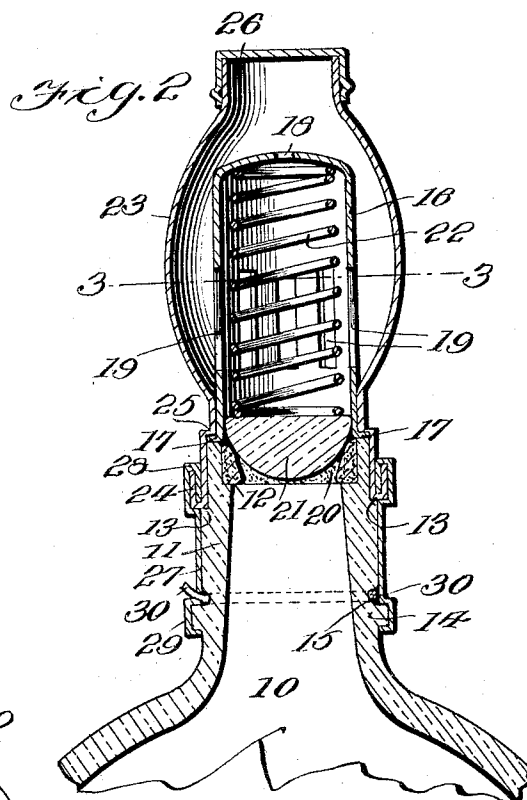
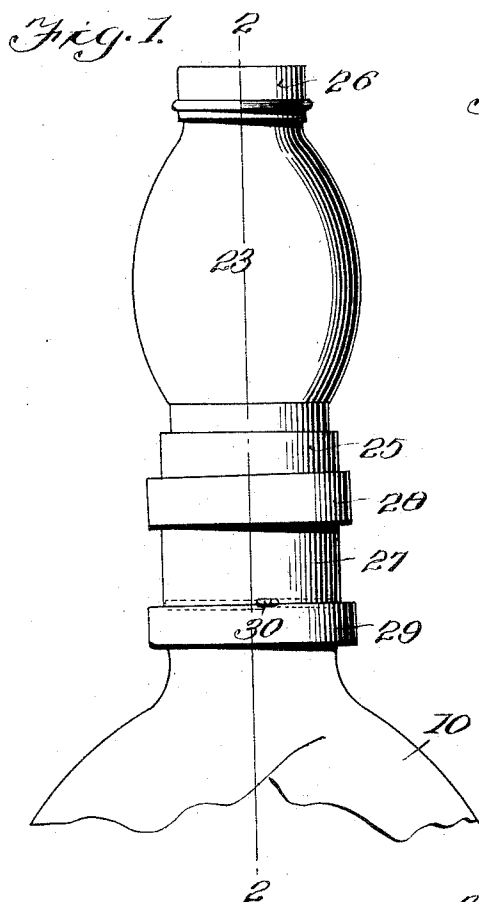


T. A. BENYON.
NON-REFILLABLE BOTTLE.
APPLICATION FILED APR. 12, 1912.

1,044,731.

Patented Nov. 19, 1912.



Inventor
T. A. Benyon.

Witnesses
Wm. H. Epp
C. H. Woodward

By

H. H. H. H. Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS A. BENYON, OF ASTORIA, NEW YORK.

NON-REFILLABLE BOTTLE.

1,044,731.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed April 12, 1912. Serial No. 690,404.

To all whom it may concern:

Be it known that I, THOMAS A. BENYON, a citizen of the United States, residing at Astoria, Long Island, in the county of Queens and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to improvements in bottles of the class wherein provision is made for preventing the surreptitious refilling of the same, and has for one of its objects to improve the construction and increase the efficiency and utility of the device.

Another object of the invention is to provide a device which may be readily applied to and detached from a bottle, and which does not destroy the bottle, but leaves the latter in condition for further use.

Another object of the invention is to provide a device of this character to which the improvement may be applied after the bottle has been filled and which may be detached when the bottle is emptied and again applied when the bottle is refilled.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and applied, and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention: Figure 1 is a view of the upper portion of a bottle including the neck with the improvement applied; Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1; Fig. 3 is a transverse section on the line 3—3 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The body of the bottle is represented conventionally at 10 and the neck portion at 11. At its upper end the neck 11 is provided with an internal shoulder 12 and an external shoulder 13. The neck 11 is also provided with an outer annular rib 14, and with an annular channel or groove 15 at the juncture of the upper side of the rib and the neck.

The improved attachment whereby the refilling is prevented, comprises a cylindrical body 16 having an outwardly directed flange 17 at the lower end which bears upon the upper edge or rim of the neck 11, and is

provided with a relatively small aperture 18 in the upper end and with a plurality of longitudinal slits or openings 19 in its side walls. The internal shoulder 12 of the neck is designed to support a suitable packing 20 of cork, rubber, or the like, to form a seat for a valve 21, the latter being preferably of glass, and located within the member 16 at its lower end. The openings 19 are located above the valve 21, as shown. Located within the cage or casing 16, is a coil spring 22 which bears constantly upon the valve 21 and maintains the same yieldably upon its seat.

Surrounding the casing or shell 16, is an outer casing or guard 23 which is swelled outwardly intermediate its ends and extends at its lower end below the upper line of the neck 11 of the bottle and bears upon the shoulder 13 and with its lower edge upturned as shown at 24, and with an inwardly directed shoulder 25 bearing upon the flange 17 of the shell 16. At its upper end, the guard member 23 is provided with a closure cap 26.

Surrounding the neck 11 between the shoulder 13 and the rib 14, is a band 27 inturned at its upper edge 28 to engage the upturned portion 24 of the member 23, and thus forming a lock joint between the members and to bind the member 23 to the bottle neck. At its lower edge the band 27 is formed to bear closely around the rib 14 as shown at 29, and thus bind the band 27 to the bottle neck. Located within the annular channel 15, is a pull wire 30 extended at one end through an aperture in the band so that it can be grasped with a suitable implement and utilized to detach the band from the bottle neck by power applied to the pull wire when the device is to be removed from the bottle neck, as hereafter explained.

The bottle is filled before the device is applied, and the device is detached when the bottle is to be refilled. After the bottle has been filled the member 16 is located upon the bottle neck with the valve 21 in position upon the seat 20, and the spring 22 holding the valve in position. The member 23 with the band 27 attached by its locking joint 24—28, is then located over the member 16, with the inset 25 engaging the flange 17 and with the lower edge 29 of the band located over the rib 14. The

band is then compressed around the rib by a suitable implement with the wire 30 in position in its channel 15. By this simple means the attachment is securely fastened in place and can be detached only by applying a sufficient force to the pull wire 30 to separate the band from the bottle neck. By this simple means the liquid can be readily withdrawn from the bottle by simply inverting the same and permitting the liquid to displace the valve 21 and flow through the openings 19 into the space between the members 16—23 and thence out through the top of the member 23, but any attempt to return the liquid to the bottle will be prevented by the presence of the valve 21.

All of the parts of the device are of metal except the valve 21, and the seat 20, and may be inexpensively manufactured and applied to bottles of different sizes and

to bottles employed for containing different kinds of liquid.

Having thus described the invention, what is claimed as new is:

A bottle neck having an annular intermediate stop shoulder and an annular rib spaced from the stop shoulder, an outer closure for the shoulder neck bearing upon said stop shoulder and having an upturned lower edge, a locking collar inclosing said bottle neck and with an in-turned upper edge and engaging the in-turned edge of the closure and engaging at its lower edge around the annular rib of the bottle neck.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS A. BENYON. [L. s.]

Witnesses:

HENRY E. PERRINE,
FRANK LAWITZKY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."